

Title (en)

FASTENING STRUCTURE FOR RING-GEAR AND DIFFERENTIAL CASE, AND DIFFERENTIAL DEVICE USING SAME

Title (de)

BEFESTIGUNGSSTRUKTUR FÜR HOHLRAD- UND AUSGLEICHSGEHÄUSE SOWIE AUSGLEICHSVORRICHTUNG DAMIT

Title (fr)

STRUCTURE DE FIXATION POUR COURONNE DENTÉE ET CARTER DIFFÉRENTIEL, ET DISPOSITIF DIFFÉRENTIEL L'UTILISANT

Publication

EP 2578904 A1 20130410 (EN)

Application

EP 10852527 A 20100604

Priority

JP 2010059539 W 20100604

Abstract (en)

A fastening structure (1) for a ring-gear (3) and a differential case (2) comprises a differential case (2) which is provided with: a ring gear (3) having a gear section (4) formed on the outer peripheral surface thereof, and a plurality of notch portions (5) formed on the inner peripheral surface thereof; a press-fitting surface (6) whereon the ring gear (3) is press-fitted; and a flange section (8) which is forced against and caulked to the notch portions (5), at the end of the press-fitting surface (6). After the ring gear (3) has been press-fitted to the press-fitting surface (6), the flange section (8) is forced toward the notch portions (5), and thus the differential case (2) is caulked and fastened to the ring gear (3). The notch portions (5) have stepped surfaces (14, 15), and thus rattling generated during torque transmission can be suppressed.

IPC 8 full level

F16H 57/02 (2012.01); **F16H 48/38** (2012.01); **F16H 48/40** (2012.01)

CPC (source: EP KR US)

F16H 48/40 (2013.01 - EP US); **F16H 57/023** (2013.01 - KR US); **F16H 57/028** (2013.01 - KR); **F16H 2048/382** (2013.01 - EP US); **F16H 2048/385** (2013.01 - EP US); **Y10T 74/2186** (2015.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)

EP 2578904 A1 20130410; **EP 2578904 A4 20131113**; **EP 2578904 B1 20141126**; CN 102939480 A 20130220; CN 102939480 B 20150722; JP 5257555 B2 20130807; JP WO2011151923 A1 20130725; KR 101356354 B1 20140127; KR 20130012029 A 20130130; US 2013074648 A1 20130328; US 9068640 B2 20150630; WO 2011151923 A1 20111208

DOCDB simple family (application)

EP 10852527 A 20100604; CN 201080067240 A 20100604; JP 2010059539 W 20100604; JP 2012518197 A 20100604; KR 20127031600 A 20100604; US 201013701691 A 20100604